

REMARKS/ARGUMENTS

Favorable reconsideration of the present application is respectfully requested.

Claim 1 has been amended to recite the feature of Claim 2 whereby the speed changing mechanism provided between the driving power source and the continuously variable transmission so as to increase or reduce a speed of rotation of the driving power source during forward running of the vehicle comprises at least one planetary gear set. Allowable Claims 4 and 6 have been rewritten in independent form.

Claims 1 and 2 were rejected under 35 U.S.C. § 102 as being anticipated by Morishige, of record. Claims 1 and 2 were also rejected under 35 U.S.C. § 102 as being anticipated by the newly cited U.S. patent to Lee (U.S. patent 5,860,888). Additionally, Claims 3 and 5 were rejected under 35 U.S.C. § 103 as being obvious over Lee in view of the previously applied U.S. patent to Takagi. However, these rejections are respectfully traversed.

Applicants had previously explained that the claimed invention provides a speed changing mechanism provided between a driving power source and a CVT so as to reduce or increase the speed of rotation of the driving power source during the forward running of the vehicle. For example, the speed changing device can comprise the planetary gear system 15 which increases the rotation speed at the output shaft 35 as compared to the rotation speed of the turbine shaft 34. Applicants also pointed out that the forward/reverse shift unit 3 of Morishige is not a speed changing mechanism which alters a speed of rotation of the driving power source during forward running of the vehicle since its ring gear 35 and carrier 31 rotate integrally during forward running (sentence bridging cols. 3-4). In response, the Examiner has now taken the position that the torque converter 2 of Morishige additionally provides a speed change mechanism. Moreover, the Examiner has now alleged that “with regard to

Claim 2, Morishige teaches the system, wherein the speed changing mechanism comprises at least one planetary gear set 3.”

Claim 1 now includes the feature of original Claim 2 that the speed changing mechanism provided between the driving power source and the continuously variable transmission so as to increase or reduce a speed of rotation of the driving power source during forward running of the vehicle comprises at least one planetary gear set. The use of at least one planetary gear set as the claimed speed change mechanism in the invention is advantageous since an amount of speed change can be more precisely controlled through the use of a planetary gear set as compared to differences between the input and output speeds of a torque converter.

Applicants respectfully submit that if it is the position of the Examiner that the speed changing mechanism of Morishige comprises the torque converter 2, then the speed changing mechanism cannot also comprise the claimed at least one planetary gear set. The torque converter 2 of Morishige does not itself comprise a planetary gear set, and the forward/reverse shift unit 3 of Morishige functions independently of the torque converter. Additionally, the forward/reverse shift unit 3 of Morishige cannot fairly be considered a part of the claimed speed change mechanism since it does not increase or reduce the speed of rotation of the driving power source during forward running of the vehicle, for the reasons set forth in the last response. Therefore, even to the extent that a speed change is provided in the torque converter 2 of Morishige so that the torque converter 2 can be characterized as a speed change mechanism during forward running of the vehicle, there is no basis in the reference for the further allegation that the “speed change mechanism” of Morishige further comprises the planetary gear set of the forward/reverse shift unit 3.

Figures 1-7 of Lee disclose a vehicle drive line including an upstream CVT 16 and a downstream CVT 18, wherein the Examiner evidently considers the “speed changing

mechanism” to be the upstream CVT 16 in combination with the forward/reverse control mechanism 8. However, this reference suffers from the same shortcoming as does Morishige: there is no evidence that the planetary gearing of the forward/reverse control mechanism 8 – which functions independently of the CVT 16 -- provides a speed changing function during forward running of the vehicle, and so there is no basis for alleging that it comprises the claimed speed changing mechanism. Rather, the clutch 20 is engaged when the transmission is in a “drive” range (col. 5, lines 43-47). As is evident from the figures of Lee, the sun gear 14 will thus be locked with the planet carrier 12 so that the shafts 4 and 18 will rotate at the same speed. The planetary gearing of Lee thus has no relation to speed changing during forward running of the vehicle and cannot reasonably be considered a part of a speed changing mechanism.

Claims 3 and 5 were rejected under 35 U.S.C. § 103 as being unpatentable over Lee in view of Takagi. In this case, the Examiner has evidently relied upon Figure 8 of Lee wherein the upstream CVT is the belt and pulley type CVT 59'. The Examiner has alleged that the speed changing mechanism in Figure 8 of Lee increases the speed of rotation of the power source during forward running, but has not explained why this is explicitly or inherently taught by the reference. In fact, the forward/reverse control mechanism 8 does not provide any speed change during forward running of the vehicle and the belt and pulley type CVT 59' would not inherently (i.e., necessarily) increase the speed of rotation. Thus Figure 8, like Figure 1, of Lee does not disclose a speed change mechanism comprising at least one planetary gear set and provided between the driving power source and the CVT so as to increase the speed of rotation of the driving power source during forward running of the vehicle.

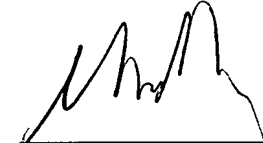
Takagi could not overcome this shortcoming of Lee. There is no explicit teaching or inherent requirement in Takagi that the gear speed change mechanism 9 thereof alters a speed

of rotation of the driving power source during forward running of the vehicle. Thus, Takagi similarly lacks a teaching of a speed change mechanism comprising at least one planetary gear set and which increases or reduces a speed of rotation of the driving power source during forward running of the vehicle, and so cannot provide such a teaching in Lee. The claims thus define over any combination of the above references.

Applicants therefore believe that the present application is in a condition for allowance and respectfully solicit an early Notice of Allowability.

Respectfully submitted,

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